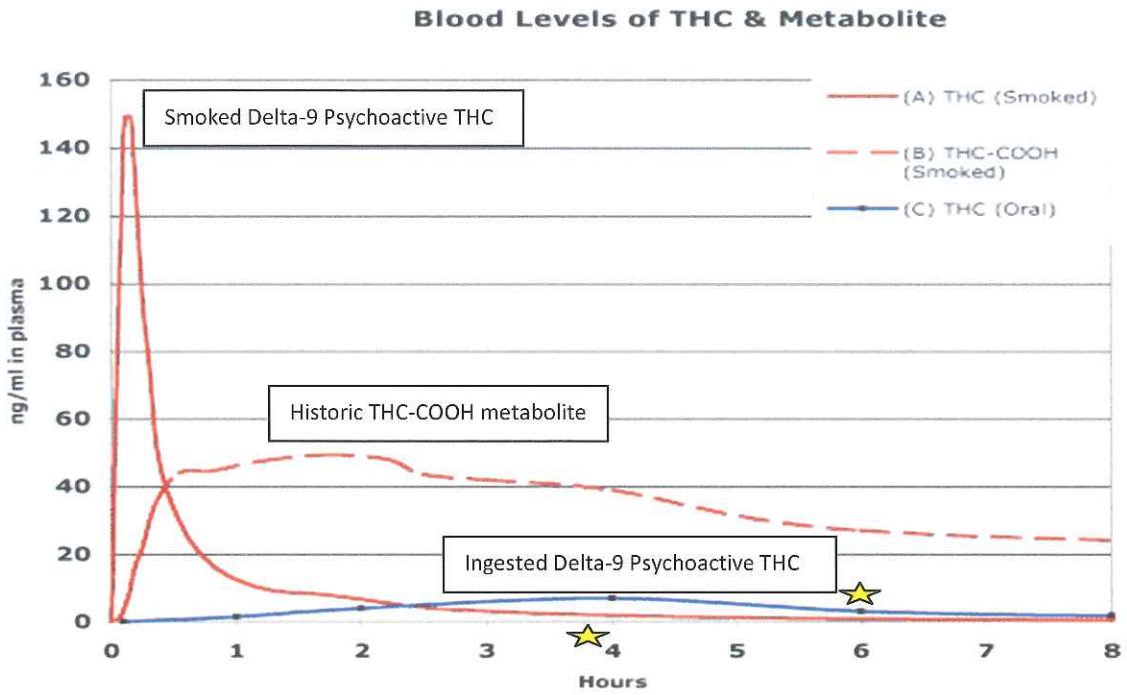
MARIJUANA IMPAIRED DRIVING



SUMMARY:

This diagram illustrates blood levels registered over the course of eight hours for: 1.) the psychoactive, brain impairing delta-9 THC, and 2.) THC-COOH the non-psychoactive "historical" metabolite.

Delta-9 THC, the psychoactive brain-impairing component of marijuana spikes considerably within the first minutes of inhaling marijuana and normally drops in whole blood below the 5ng/mL level after approximately 3-4 hours. Ingested marijuana takes approximately 40 minutes to reach the digestive tract and most behavioral and physiological effects and drops after approximately 6-8 hours.

THC-COOH non-psychoactive "historical" metabolite (dashed line) is representative of the body's process to breakdown marijuana. It remains in the body for a much longer period of time, and is best utilized in measuring historic use of marijuana and not immediate impairment.

Research indicates that individuals who exceed 5ng/mL of the brain-impairing Delta-9 THC in whole blood are significantly impaired and are at increased risk of vehicular crashes. Drivers under the influence of marijuana are 2-7 times more likely to be responsible for a crash and 2-times as likely to be in a fatal crash. Performance impairment and crash risk both increase with increased Delta-9 THC concentration. At low concentration levels, complex tasks are generally affected, at high concentration levels, simple tasks are also affected.

Safety issues related to marijuana impairment are: reduced peripheral vision; lack of coordination and balance; distortions in the perception of time, speed, and space; reduced ability to judge distances; poor signal detection; slower reaction time, gross and fine motor skill impairment, divided and un-sustained attention; poor decision making, inability to process new information readily and hinders memory recall.

Residual levels of Delta-9 THC found in frequent users of marijuana, such as some medical marijuana users, normally reside 0-1ng/mL, far below the 5ng/mL significant impairment limit.

Permissible Inference at 5ng/mL permits one to infer that the driver was impaired; however impairment at 5ng/mL can still be challenged. Previous bill versions of Per Se would not allow for the test reflecting impairment to be challenged.